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09/964,335	09/28/2001	Takahiro Tsukishima	566.40719X00	2325

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ALEXANDRIA, VA 22314

EXAMINER
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GRAYSAY, TAMARA L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/964,335

Applicant(s)

TSUKISHIMA ET AL.

Examiner

Tamara L. Graysay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-14, 17-20 and 23 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 15, 16, 21, 22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Priority*

### *Drawings*

1. The drawings are objected to because of the following:
  - a. They fail to comply with 37 CFR 1.84(h)(5) because Figure 2C and 2F show(s) modified forms of construction in the same view. In particular, see page 17, lines 5-6 which indicate that the single server is an alternative embodiment or modified form.
  - b. They fail to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 111, 112, and 113 (Figure 3); 38 (Figure 7); 2009 (Figure 19).
  - c. They fail to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: “2001” (P.34, L.16; P.36, L.24; P.37, L.2).
  - d. The lead line for reference character 2210 in Figure 19 is misdirected to element 2220, and not directed to element 2210.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because of the following informalities:

- a. P.16, L.17, "ST" should be SR as used throughout the remainder of the specification and drawings.
- b. P.21, L.13, reference character Mp is not included in Figure 5.
- c. P.21, L.23, reference character f' is not included in Figure 5.
- d. P.22, L.6, reference character  $\Delta P$  ' is not included in Figure 5.
- e. P.22, L.24, reference character x ' is not included in Figure 5.
- f. P.23, L.1, reference character Mm ' is not included in Figure 5.
- g. P.25, lines 2 and 5, reference character 36 is not included in Figure 7. Figure 7 depicts the same element with reference character 38.
- h. P.26, L.8, reference character 1106 should be added after "device."
- i. P.26, L.22, "1505" should be 1105.
- j. P.27, L.26, "A10" should be A40.
- k. P.34, L.16 and P.37, L.2, reference character "2001" is not included in Figure 19.
- l. P.38, L.4, "1102" should be 1101. P.51, L.25 and P.52, L.1, the units of measure for foreign currency, e.g., yen, should be converted to dollars.

Appropriate correction is required.

***Claim Objections***

4. Claims 1, 5, 6, and 17 are objected to because of the following informalities:
- Claims 1 and 17, the recitation of “the first correlation information group” and “the second correlation information group” have been treated as a first correlation information group and a second correlation information group.
  - Claim 5, line 3, the risk level has been interpreted to be a modification of the acceptable risk level recited at line 6 of claim 2, not the risk level information recited at lines 3-5 of claim 2.
  - Claim 6, line 3, the gross investment has been interpreted to be a modification of the gross investment intended to invest in management reforms recited at line 13 of claim 3, not the gross investment information recited at line 3 of claim 3.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-16 and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is confusing because although the preamble recites a method, the first paragraph of the body of the claim recites nonfunctional descriptive data without recitation of an activity or process step. Applicant is requested to clarify whether the first paragraph of the body of the claims are directed to an activity or process step.

Claim 10 has the same indefiniteness.

Claim 23 has the same indefiniteness.

Further the preamble of claim 1 is directed to a method of assisting in forming plans of measures for management reforms, however, the body of the claim sets forth plans of measures as part of the general plan-of-measures group (line 6 of claim 1, for example) which is stored in the data storage device (line 13-14 of claim 1, for example), not formed via the process steps set forth in claim 1. In other words, the claim lacks a step of “forming” plans of measures for management reforms.

Claim 10 has the same indefiniteness.

Claim 23 has the same indefiniteness.

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Claim 4, line 5, recites “it” rendering the claim indefinite because the claim does not clearly set forth the patent protection desired because it can be any previously recited element including the target profit, the enterprise, the plans of measures, etc.

Claim 11 is directed to a “system,” however, the body of the claim positively recites activities or process steps to be performed. As a result, the claim is not clear whether it is directed to an apparatus or a method. The claim has been treated as an apparatus capable of executing the functions recited at lines 19-27 rather than actually performing the functions.

Claims 12-16 have the same indefiniteness.

Claim 25, “the same” at line 7 is indefinite insofar as the element that is being referenced is not clear. Does the term “the same” mean that a server performs the step of accumulating the program, or a server performs the step of accumulating the plans of measures?

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 10-14, 17-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bermon (US-5946212).

Bermon discloses a method of assisting in forming plans of measure (work allocation) for management reforms (capacity planning) executed by an information processor wherein: a general business-operation-index group (referred to in Bermon as tool groups, generally), a general plan-of-measures group (referred to in Bermon as cascade sets and non-cascade sets of tool groups), a first correlation-information group including a correlation between the indexes of the business-operation-index group and the general plan-of-measures group (referred to in Bermon as the primary tool group TG1, e.g., 4:41-58, which is a correlation between the tools available and the tools sets allocated to produce a work); a problem-index group that needs improvement (referred to in Bermon as the sharing or work and the order preference among tool groups, e.g., 4:41-58, which is to be optimized); a second correlation-information group (referred to in Bermon as gating or pinching tool groups that limit the production of the line, e.g., 4:59-64 and are extracted from the primary tool group that is possible for production in the capacity planning process); a potential plan-of-measures group relating to the second correlation-information group (referred to in Bermon as the sharing of work among tool groups, e.g., the work can flow back and forth among the tool groups, e.g., 4:41-58); and a resultant one or more



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potential plan-of-measure are output (allocating work in rank order across parallel unrelated tools for capacity planning as a linear program, e.g., 14:15-23; detailed output reports can be printed breaking down tool group usage by operation, e.g., 14:35-38).

Bermon lacks the storing the various data in a data storage device, however, at 43 Bermon discloses data files. Data storage devices were well known expedients used to store data so that the data did not have to be re-entered for each scenario or what-if process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bermon to include data storage device for storing the various datum in order to prevent the need to re-enter data for each scenario.

Regarding claim 2, the examiner takes Official notice that risk is a general business term that refers to probability of a particular event occurring. Usually it has a negative connotation such as insofar as ventures that are high risk are less attractive than those that are low risk in a for profit business which is generally risk averse. And risk may be determined with regard to any element or effect considered when making a business decision. Therefore, the evaluation of Berman with regard to optimum number of starts and discouraging greater than 100% usage of tool groups are types of risk that are accessed in Bermon's method. Thus, the claim limitation of risk level information (percent usage of tool group or number of starts) are stored in the data file as constraints, and acceptable levels for the constraints are also either entered by the user manually or automatically in the what if scenarios, e.g., 14:31-35.

Regarding claim 3, the claim includes consideration of costs for each plan-of-measure group and adopting a plan-of-measure if it is under the gross investment level limit and not adopting a plan-of-measure that exceeds the gross investment level limit.

Bermon teaches maximization of profit (e.g., 45 in Figure 4). Although Bermon is silent as to how profit is computed, in the business field profit is determined using well known accounting techniques. Also, it was well known in business to analyze cost or investment in relation to available budget and to make business decisions based on cost or investment limits. As such, it would have been obvious to one of ordinary skill in the capacity planning field of endeavor to look to accounting techniques to correlate costs or investments associated with each scenario and to determine profit for each scenarios, i.e., correlate to each scenario the profit and/or gross investments associated with the respective scenario, in order to make business decisions aligned with the business goals and objectives that are within the budget of the business.

Regarding claim 4, the examiner takes Official notice that target profit for various aspects of a business were commonly set and forecasted by a for profit enterprise. Target profit goals were a measure of success or a type of business goal used by for profit business enterprises to make business decisions that increase profitability. In the case of Bermon, it would have been obvious at the time the invention was made to include target profit goals as a basis for weeding out undesirable plans of measures, or plans of measures that are not at an acceptable level of profitability, in order to maximize profit and reduce the time and associated costs which a person

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would spend analyzing plans of measures that are undesirable or not profitable enough to merit consideration.

Regarding claim 10, the method is not patentable for the same reasons as noted in the above rejection.

Regarding claims 11-14, the system for performing the method is met by Bermon insofar as Bermon is implemented on a computer.

Regarding claims 17-20, similarly a computer program product that includes the instructions necessary to perform the method would have been obvious in order to enable the Bermon method to be realized.

Regarding claim 23, Bermon includes inputting information indicating the current condition of the business (input data files, 43 in Figure 4, are indicative of business conditions, as broadly recited.).

7. Claims 7-9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bermon (US-5946212) as applied to claim 1 above, and further in view of Hoffman (US-5905666).

Regarding claim 7, Hoffman teaches solving a linear equation using a computer program that expedites processing of vector, index, and matrix parameters of a complex problem. The Hoffman goal of minimizing cost in a complex logistics scenario is directly applicable to applicant's goal of maximizing profit in a complex manufacturing process. The two scenarios are complex due to multiple variables contained in the analysis and the goal of minimizing cost is one aspect of maximizing profit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the linear programming analysis for solving the Bermon method of determining a plan of measure that maximizes profit in order to meet business goals set for the business entity.

Regarding claims 8, 9 and 26, the particular input, whether risk or gross investment, that is entered for the linear programming method is not of significance other than the inherent change in the outcome of a linear programming analysis when a particular variable is known. The linear programming as mentioned in Hoffman is iterative and is used to ensure complete analysis of the matrix content, i.e., the correlation of the first correlation matrix and of the second correlation matrix are repeated to ensure that the linear programming problem is solved in a manner minimizing cost. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to input risk and/or gross investment to determine the scenario that maximizes profit.

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*Allowable Subject Matter*

8. Claims 5, 6, 15, 16, 21, 22, 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 10/15/05  
Tamara L. Graysay  
Examiner  
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